REMARKS/ARGUMENTS

Favorable reconsideration of this application is respectfully requested.

The specification is amended by the present response to correct minor informalities. The changes made to the specification are deemed to be self-evident from the original disclosure, and thus are not deemed to raise any issues of new matter.

Claims 1, 2, 4-10, and 12-20 are pending in this application. Claims 3 and 11 are canceled by the present response without prejudice. Claims 10-12 and 20 were rejected under 35 U.S.C. § 102(b) as anticipated by U.S. patent 5,526,025 to Selwan et al. (herein "Selwan"). Claims 1-9 and 13-19 were rejected under 35 U.S.C. § 103(a) as unpatentable over Selwan in view of U.S. patent 6,333,745 to Shimomura et al. (herein "Shimomura"). Claims 9, 17, and 18 were objected to as dependent upon a rejected base claim, but were noted as allowable if rewritten in independent form to include all of the limitations of their base claims and any intervening claims.

Initially, applicants gratefully acknowledge the early indication of the allowable subject matter in claims 9, 17, and 18.

Addressing now the rejection of claims 10-12 and 20 under 35 U.S.C. § 102(b) as anticipated by Selwan, that rejection is traversed by the present response.

Each of independent claims 10 and 20 is amended by the present response to clarify features recited therein. Specifically, independent claim 10 now recites that the liquid crystal driver includes both of a "first latch circuit" that stores the display-data from the single-port memory "in response to a first latch signal" and a "second latch circuit that stores an output of the first latch circuit in response to a second latch signal". Independent claim 20 is similarly amended.

Such features now clarified in independent claims 10 and 20 are believed to be clear from the original disclosure, see for example the first latch circuit 14 and the second latch

circuit 16, and see also the present specification at page 6, line 36 to page 7, line 6, as non-limiting examples.

The features clarified in independent claims 10 and 20 are believed to clearly distinguish over Selwan.

According to claims 10 and 20, a liquid crystal driver includes a *first latch circuit* that stores display-data from the single-port memory in response to a first latch signal and a *second latch circuit* that stores an output of the first latch circuit in response to a second latch signal, and retrieves the display-data from the single-port memory on a specific cycle and sends the display-data to the liquid crystal displaying section. Therefore, in claims 10 and 20 the first latch circuit is included in the liquid crystal driver and is not included in the single-port memory.

In contrast to claims 10 and 20, Selwan discloses, for example in Figure 12, a semiconductor device including a Display Memory Read FIFO 1212 as both of a single-port memory and a first latch circuit, and a Holding Latch 1214 as a second latch circuit. As is clear in Selwan the Display Memory Read FIFO 1212, which is noted in the Office Action in the rejection to claim 3 as corresponding to the first latch circuit, is also the single-port memory.

In contrast to Selwan, in claims 10 and 20 the liquid crystal driver includes the first latch circuit, and the single-port memory does not include the first latch circuit.

In such ways, amended independent claims 10 and 20, and the claims dependent therefrom, distinguish over the teachings in Selwan.

Addressing now the rejection of claims 1-9 and 13-19 under 35 U.S.C. § 103(a) as unpatentable over Selwan in view of Shimomura, that rejection is traversed by the present response.

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Independent claims 1 and 19 are amended by the present response to clarify features recited therein, and to specifically recite features from now canceled dependent claim 3. Specifically, those claims now further recite that the liquid crystal driver includes a first latch circuit that stores the display-data from the single-port memory in response to a first latch signal, a second latch circuit that stores an output of the first latch circuit in response to the second latch signal, and wherein the controller outputs the first latch signal based on the second latch signal and a CPU-access signal that indicates the access operation of the CPU to the single-port memory.

Independent claims 1 and 19 are believed to clearly distinguish over the teachings of Selwan for reasons discussed above with respect to the rejection of claims 10 and 20. Specifically, those claims also recite the first latch circuit as part of the liquid crystal driver, and not as part of the single-part memory. Shimomura also does not disclose such features.

Further, independent claims 1 and 19 even further clarify that a controller controls the liquid crystal driver so that when a CPU does not have access to the single-port memory, the display-data is retrieved from the single-port memory to the liquid crystal driver on a specific cycle and the retrieved data is sent to the liquid crystal displaying section. Further in independent claims 1 and 19, whereas when the CPU has access to the single-port memory while the data is being retrieved from the single-port memory to the liquid crystal driver, a priority is given to the CPU so that the CPU starts an access operation while the liquid crystal driver stops a display-data retrieval operation, and on completion of the access operation, the liquid crystal driver again starts the display-data retrieval operation.

Such further features are believed to even further distinguish over the applied art.

Selwan does not teach or suggest such features. Further, Shimomura teaches a data processing system in which when data to the access already executed is transferred from the memory, the memory controller holds it (see for example the Abstract in Shimomura).

Therefore, <u>Shimomura</u> needs a buffer to the data to the access already executed that is transferred from the memory.

In contrast to <u>Shimomura</u>, in independent claims 1 and 19, on completion of the access operation, the liquid crystal driver again starts the display-data retrieval operation. Therefore, in the device of independent claims 1 and 19 a buffer to the data access already executed that is transferred from the memory is not needed.

Further, unlike the device of independent claims 1 and 19, <u>Shimomura</u> and <u>Selwan</u> do not teach or suggest that on completion of the access operation the liquid crystal driver again starts the display-data retrieval operation.

Accordingly, applicants respectfully submit amended independent claims 1 and 19, and the claims dependent therefrom, distinguish over <u>Selwan</u> in view of <u>Shimomura</u>.
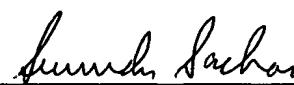
As no other issues are pending in this application, it is respectfully submitted that the present application is now in condition for allowance, and it is hereby respectfully requested that this case be passed to issue.

Respectfully submitted,

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